AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1-12 (cancelled)

13. (currently amended) Method for receiving an ultra-wideband signal representative of symbols, this signal ~~which is~~ being transmitted over a transmission channel comprising, over a symbol time, a series of modulated successive direct pulses, each direct pulse being propagated along at least one direct propagation path, and each direct pulse being associated with ~~which series~~ a plurality of separate successive secondary pulses ~~are associated~~ which are each propagated along a secondary propagation path, that method comprising:

~~characterised in that, with~~

- receiving the series of modulated successive direct pulses and the plurality of secondary pulses associated with each of the modulated successive direct pulses being received on the same receiving circuit,

~~the method consists in:~~

- producing a composite correlation pattern which is constituted by a series of elemental correlation patterns comprising first elemental correlation pattern which is

associated with each direct pulse and successive elemental
correlation patterns which are each associated with a successive
secondary pulse,

- calculating the value of ~~the~~ a global
intercorrelation coefficient ~~between each direct pulse associated
with the plurality of secondary pulses and the composite
correlation pattern~~, which allows a global correlation value to
be obtained for the symbol, the calculating comprising

i) calculation of the elemental intercorrelation
coefficient between each elemental intercorrelation pattern and
the direct pulse or secondary pulse associated with each of
elemental intercorrelation patterns, and

ii) integration, over the symbol time, of the group of
elemental intercorrelation coefficient values in order to
transmit the global intercorrelation coefficient value which
represents the global correlation value of the symbol.

14.(cancelled).

15. (currently amended) Method according to claim
[[14]] 13, ~~characterised in that~~ wherein the successive elemental
correlation patterns are staggered over time relative to the
first elemental correlation pattern by the difference in
propagation time between the propagation time of the direct pulse
over the direct propagation path and the propagation time of the

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associated secondary pulse which is propagated over the corresponding secondary propagation path.

16. (cancelled).

17. (currently amended) Method according to claim 13, ~~characterised in that~~ <u>wherein</u>, for a countable group of pulses, direct pulse and secondary pulses, which are propagated over a direct path or secondary path of a plurality of secondary propagation paths, the method consists in retaining the first N paths, the first N paths comprising the direct path which corresponds to the shortest propagation time for the associated modulated pulse, and N-1 secondary paths which each correspond to a propagation time for a secondary pulse which is successively increasing.

18. (currently amended) Method according to claim 13, ~~characterised in that~~ <u>wherein</u>, for a countable group of pulses, direct pulse and secondary pulses, which are propagated over a direct path or secondary path of a plurality of secondary propagation paths, the method consists in retaining N paths for which the amplitude of the direct pulse and secondary pulses is at a maximum.

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19. (currently amended) Method according to claim 17, ~~characterised in that~~ wherein the number N of retained paths is adapted either in accordance with a selection criterion of the first N paths or in accordance with a selection criterion of the N paths which correspond to a maximum amplitude of the direct pulse and the secondary pulses in accordance with the propagation conditions, which allows the quality of the connection via ultrawideband signal to be optimised.

20. (currently amended) Method according to claim 13, ~~characterised in that~~ wherein the step which consists in producing a composite correlation pattern consists in:

- establishing, by means of correlation over at least one symbol time, an image of the transmission channel in terms of direct pulse or secondary pulses, of the propagation time and the difference in propagation time between the direct pulse and successive secondary pulses,

- updating, by means of sliding correlation, the image of the transmission channel in order to update the appearance and disappearance of secondary propagation paths and/or the direct propagation path, and to establish, over at least one symbol time, the composite correlation pattern as an updated image of the transmission channel.

21. (currently amended) System for receiving an ultra-wideband signal representative of symbols, this signal which is transmitted over a transmission channel comprising, over a symbol time, a series of modulated successive direct pulses, each modulated pulse being propagated along at least one direct propagation path, with which series a plurality of separate successive secondary pulses are associated which are each propagated along a secondary propagation path, characterised in that it comprises at least:

- common means for receiving the series of modulated successive pulses and the plurality of secondary pulses associated with each of the modulated successive direct pulses, and, connected to the common receiving means,

- connected to the common receiving means, a means for acquiring and updating, over at least one symbol time, an image of the transmission channel, in terms of direct pulse or secondary pulses, of the propagation time and the difference in propagation time between the direct pulse and successive secondary pulses, the acquisition and updating means allowing, by means of sliding correlation, the appearance and the disappearance of secondary propagation paths and/or the principal propagation path to be updated and, over at least one symbol time, a composite correlation pattern to be established which is constituted by a series of successive elemental correlation patterns which are each associated with a direct pulse and a

plurality of successive secondary pulses, the acquisition and updating means allowing a path list signal to be transmitted representing the image of the transmission channel;

- a single correlation means which receives the path list signal for direct and secondary propagation paths and which allows the value to be calculated for ~~the~~ a global intercorrelation coefficient ~~between each direct pulse which is associated with the plurality of secondary pulses and the composite correlation pattern~~, which allows a global correlation value to be obtained for the symbol,

the calculation of the global intercorrelation coefficient comprising

i) calculation of the elemental intercorrelation coefficient between each elemental intercorrelation pattern and the direct pulse or secondary pulse associated with each of elemental intercorrelation patterns, and

ii) integration, over the symbol time, of the group of elemental intercorrelation coefficient values in order to transmit the global intercorrelation coefficient value which represents the global correlation value of the symbol.

22. (currently amended) System according to claim 21, ~~characterised in that~~ wherein each successive elemental correlation pattern is staggered over time relative to the first elemental correlation pattern associated with each direct pulse,

by the difference in propagation time between the propagation time of the direct pulse over the direct propagation path and the propagation time of the associated secondary pulse which is propagated over the corresponding secondary propagation path.

23. (currently amended) System according to claim 22, ~~characterised in that~~ <u>wherein</u> the acquisition and updating means comprises:

- at least one global acquisition and tracking correlation means which receives the series of successive pulses from the common receiving means and which transmits a global acquisition correlation coefficient value;

- a channel scanning and tracking module which receives at least the global acquisition correlation coefficient value and the global correlation coefficient value and which transmits, on the one hand, the path list signal for direct and secondary propagation paths and, on the other hand, a synchronisation signal to the global acquisition and tracking correlation means.

24. (currently amended) System according to claim 23, ~~characterised in that~~ <u>wherein</u> the global acquisition and tracking correlation means comprises:

- a correlator which receives the series of successive pulses received and a summing integrator which transmits the acquisition correlation coefficient value;

- an elemental synchronisation pattern generator which receives the synchronisation signal and which transmits an acquisition correlation pattern to the correlator, the synchronisation signal consisting in a series of successive elemental correlation pattern times which allows the path list signal to be updated for the following symbol time by means of sliding correlation based on the global correlation coefficient value transmitted by the single correlation means for the preceding symbol time, in accordance with the appearance and disappearance of direct and secondary propagation paths in accordance with the variability of the transmission channel.

25. (currently amended) System according to claim [[21]] 23, ~~characterised in that~~ wherein the path list signal transmitted by the channel scanning and tracking module is formed by the composite correlation times with the series of successive pulses received, for which the global intercorrelation coefficient value transmitted by the single correlation means is at a maximum.

26. (currently amended) System according to claim 23, ~~characterised in that it comprises~~ further comprising a plurality of global acquisition and tracking correlation means which receive the series of successive pulses received, each global acquisition and tracking correlation means being associated with

an elemental synchronisation pattern generator, the assembly formed by a global acquisition and tracking correlation means and by the elemental pattern generator associated therewith receiving a specific correlation time list signal transmitted by the channel scanning and tracking module, the specific correlation time list signals corresponding to segments of time which are staggered, which allows a series of successive elemental correlation patterns to be produced by means of successive complementary time segments by means of sliding correlation and the acquisition time for the image of the transmission channel to be substantially divided by the number of global acquisition and tracking correlation means which constitute the plurality of global acquisition and tracking correlation means.

27. (currently amended) System according to claim 21, ~~characterised in that~~ wherein the single correlation means comprises at least:

- an elemental correlation pattern generator, and, ~~associated with this generator,~~

- a module associated with the elemental correlation pattern generator, for weighting at least one of the elemental correlation patterns which constitute the composite correlation pattern.

28. (currently amended) Method according to claim 18, ~~characterised in that~~ wherein the number N of retained paths is adapted either in accordance with a selection criterion of the first N paths or in accordance with a selection criterion of the N paths which correspond to a maximum amplitude of the direct pulse and the secondary pulses in accordance with the propagation conditions, which allows the quality of the connection via ultra-wideband signal to be optimised.

29. (currently amended) Method according to claim 14, ~~characterised in that~~ wherein the step which consists in calculating the value of the global intercorrelation coefficient comprises:

- calculation of the elemental intercorrelation coefficient between each elemental intercorrelation pattern and the direct pulse associated with the plurality of secondary pulses;

- integration, over the symbol time, of the group of elemental intercorrelation coefficient values in order to transmit the global intercorrelation coefficient value which represents the global correlation value of the symbol.

30. (currently amended) Method according to claim 15, ~~characterised in that~~ wherein the step which consists in

calculating the value of the global intercorrelation coefficient comprises:

- calculation of the elemental intercorrelation coefficient between each elemental intercorrelation pattern and the direct pulse associated with the plurality of secondary pulses;

- integration, over the symbol time, of the group of elemental intercorrelation coefficient values in order to transmit the global intercorrelation coefficient value which represents the global correlation value of the symbol.

31. (currently amended) System according to claim 22, ~~characterised in that~~ wherein the single correlation means comprises at least:

- an elemental correlation pattern generator and, ~~associated with this generator,~~

- a module associated with the elemental correlation pattern generator for weighting at least one of the elemental correlation patterns which constitute the composite correlation pattern.

32. (currently amended) System according to claim 23, ~~characterised in that~~ wherein the single correlation means comprises at least:

- an elemental correlation pattern generator and, ~~associated with this generator,~~

- a module <u>associated with the elemental correlation pattern generator</u> for weighting at least one of the elemental correlation patterns which constitute the composite correlation pattern.

33. (new) Method according to claim 13, wherein,

- a correlator receives the series of successive pulse from the common receiving circuits, and

- said correlator transits the elemental correlation values.

34. (new) System according to claim 21, wherein the single correlation means comprises a correlator, which correlator receives the series of successive pulse from the common receiving circuits and transits the elemental correlation values.